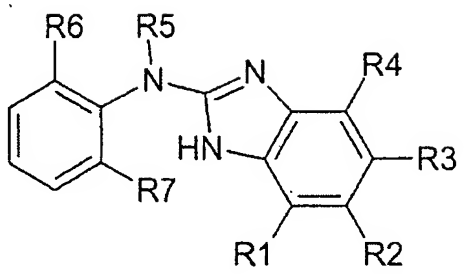
Patent Claims

We Claim:

1. A compound of formula I



I

wherein,

R1 and R4 are independently selected from the group consisting of H, F, Cl, Br, C_1-C_4-alkyl and C_1-C_4-alkoxy wherein, the C_1-C_4-alkyl and C_1-C_4-alkoxy are optionally substituted independently of one another by 1, 2, 3, 4, 5, 6, 7, 8 or 9 fluorine atoms;

R2 and R3 are independently selected from the group consisting of H, F, OH, C_1-C_3-alkyl, and C_1-C_3-alkoxy wherein, the C_1-C_3-alkyl and C_1-C_3-alkoxy are optionally substituted independently of one another by 1, 2, 3, 4, 5, 6 or 7 fluorine atoms;

R5 is independently selected from the group consisting of C_1-C_4-alkyl, C_2-C_4-alkenyl and C_3-C_5-cycloalkyl, wherein, the C_1-C_4-alkyl, C_2-C_4-alkenyl and C_3-C_5-cycloalkyl are optionally substituted by 1, 2, 3, 4, 5, 6, 7, 8 or 9 fluorine atoms; and

R6 and R7 are independently selected from the group consisting of H, F, Cl, Br, C_1-C_4-alkyl and C_1-C_3-alkoxy, wherein, the C_1-C_4-alkyl and C_1-C_3-alkoxy are optionally substituted independently of one another by 1, 2, 3, 4, 5, 6, 7, 8 or 9 fluorine atoms,

provided that R6 and R7 are not simultaneously hydrogen;

or the pharmaceutically acceptable salt, or trifluoroacetic acid salt thereof.

2. The compound according to claim 1 wherein,

R1 and R4 are independently selected from the group consisting of H, F, Cl, Br, C_1-C_4-alkyl and C_1-C_4-

alkoxy, wherein, the C_1-C_4-alkyl and C_1-C_4-alkoxy are optionally substituted independently of one another by 1, 2, 3, 4, 5, 6, 7, 8 or 9 fluorine atoms;

R2 and R3 are independently selected from the group consisting of H, F, OH, C_1-C_3-alkyl, or C_1-C_3-alkoxy, wherein, the C_1-C_3-alkyl and C_1-C_3-alkoxy are optionally substituted independently of one another by 1, 2, 3, 4, 5, 6 or 7 fluorine atoms;

R5 is independently selected from C_1-C_4-alkyl, C_2-C_4-alkenyl and C_3-C_5-cycloalkyl wherein, the C_1-C_4-alkyl, C_2-C_4-alkenyl and C_3-C_5-cycloalkyl are optionally substituted by 1, 2, 3, 4, 5, 6, 7, 8 or 9 fluorine atoms; and

R6 and R7 are independently selected from the group consisting of F, Cl, Br, C_1-C_3-alkyl or C_1-C_3-alkoxy, wherein, the C_1-C_3-alkyl and C_1-C_3-alkoxy are optionally substituted independently of one another by 1, 2, 3, 4, 5, 6 or 7 fluorine atoms,

provided that R6 or R7 does not correspond to hydrogen.

3. The compound according to claim 1, which is:

(1H-benzoimidazol-2-yl)(2,6-dichlorophenyl)methylamine;

(1H-benzoimidazol-2-yl)(2,6-dichlorophenyl)ethylamine;

(2,6-dichlorophenyl)(5-fluoro-1H-benzoimidazol-2-yl)methylamine;

(1H-benzoimidazol-2-yl)(2,6-dichlorophenyl)isopropylamine;

allyl(1H-benzoimidazol-2-yl)(2,6-dichlorophenyl)amine;

(1H-benzoimidazol-2-yl)cyclopentyl(2,6-dichlorophenyl)amine; or

the pharmaceutically acceptable salt, or trifluoroacetic acid salt thereof.

4. A method of inhibiting the activity of sodium-proton exhanger of subtype 3 (NH3) comprising contacting an inhibitory amount of a pharmaceutically effective amount of a compound according to

claim 1 to a patient in need thereof.

5. A method of treatment or prophylaxis with a pharmaceutical composition comprising a compound of formula I and/or a pharmaceutically acceptable salt thereof, of claim 1, for a disorder of the respiratory drive, a respiratory disorder, a sleep-related respiratory disorder, sleep apnea, snoring, an acute renal disorder, a chronic renal disorder, an acute renal failure, a chronic renal failure, a disorder of an intestinal function, a disorder of high blood pressure, a disorder of essential hypertension, a disorder of the central nervous system, a disorder resulting from central nervious system overexcitability, epilepsy and centrally induced convulsions, a disorder of an anxiety state, depressions and psychoses, an ischemic state of the peripheral and central nervous system, a stroke, a disorder of acute and chronic damage to a peripheral organ and limb caused by an ischemic event, a disorder of a peripheral organ and limb caused by a reperfusion event, a disorder of atherosclerosis, a disorder of lipid metabolism, a disorder of thromboses, a disorder of biliary function, a disorder of infestation by ectoparasites, a disorder resulting from endothelial dysfunction, a protozoal disorder, malaria, for the preservation and storage of a transplant for a surgical procedure, for use in a surgical operation and an organ transplant, for the treatment of shock, for the treatment of diabetes and late damage from diabetes, for the treatment of a disease in which cellular proliferation represents a primary or secondary cause, and for maintaining health and prolonging life.

6. The method of claim 5 wherein, the compound or salt is used in combination with one or more other drugs or active ingredients.

7. The method of claim 5 wherein, the drug is for the treatment or prophylaxis of a disorder of the respiratory drive and/or of a sleep-related respiratory disorder.

8. The method of claim 7 wherein, the sleep-related respiratory disorder is sleep apnea.

9. The method of claim 5 wherein, the drug is for the treatment or prophylaxis of snoring.

10. The method of claim 5 wherein, the drug is for the treatment or prophylaxis of an acute renal disorder, a chronic renal disorder, an acute renal failure, or a chronic renal failure.

11. The method of claim 5 wherein, the drug is for the treatment or prophylaxis of a disorder of an intestinal function.

12. A pharmaceutical composition for human, veterinary or phytoprotective use comprising a pharmaceutically effective amount of one or more compounds or a salt according to claim 1.

13. The composition of claim 12 further comprising one or more other pharmacologically active ingredients or drugs.